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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,587	09/29/2003	Takeshi Wada	243102US3	9988

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EXAMINER

RENNER, CRAIG A

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/671,587	Applicant(s) WADA ET AL.	
	Examiner Craig A. Renner	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 4,7-13,17,20-26,30 and 33-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,14-16,18,19,27-29,31,32 and 40-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/29/03 & 7/06/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of "Species I of Figs. 1-5" and indication that the "Claims corresponding to the elected species I are claims 1-7, 14-20, 27-33 and 40-42," in the reply filed on 07 April 2006 is acknowledged. Claims 4, 7, 17, 20, 30 and 33, however, do not read on elected Species I of Figs. 1-5 as this species does not include "wherein said first at least one leaf spring section and said load beam are formed by coupling in integral individual plate members" as per claims 4, 17 and 30, nor "wherein said first at least one leaf spring section is formed by a plurality of leaf spring sections" as per claims 7, 20 and 33. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Accordingly, claims 4, 7-13, 17, 20-26, 30 and 33-39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to one or more non-elected inventions/species, there being no allowable generic or linking claim.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings are objected to because of the following informalities:

a. The drawings as failing to comply with 37 CFR 1.84(p)(5) because they include one or more reference signs not mentioned in the description. Note, for instance " I_2 " (shown in Figs. 6a and 6b, for instance).

b. Figs. 6a and 7b should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

c. In Fig. 5, "21C" should be changed to --21c-- in order to be consistent with the remainder of the disclosure.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) and/or an amendment to the specification in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

5. The disclosure is objected to because of the following informalities:

In line 8 on page 9, lines 19 and 23 on page 15, lines 9 and 18 on page 16, lines 1 and 15 on page 17, and lines 4 and 17 on page 22, each instance of the word "unprung" appears to be a misspelling as this word is not found in a dictionary. Perhaps the correct spelling of the word is --unsprung--. Appropriate correction is required.

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 5, 18 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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- a. In line 3 in each of claims 5, 18 and 31, each instance of the term “unprung” is indefinite as no defined meaning of this term can be found.
- b. In lines 3-4 in each of claims 18 and 31, each instance of “said head gimbal assembly” is indefinite because it lacks clear and/or positive antecedent basis.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-3, 5-6, 14-16, 18-19, 27-29, 31-32, and 40-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Hatch et al. (US 5,657,187).

Hatch et al. (US 5,657,187) teaches a suspension comprising a resilient flexure (14, sometimes mislabeled 17) for supporting a head slider (12, sometimes mislabeled 16) having at least one head element (lines 60-62 in column 1, for instance) to control flying attitude of the head slider; a load beam (16), supporting the flexure at its top end section (as shown in FIGS. 2A and 5B, for instance), for applying a load in a direction perpendicular to a surface of a recording medium (11) to the head slider; at least one

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fixing means (includes adjacent 18, for instance, in at least an equivalent structural sense), formed integral with the load beam (as shown in FIGS. 2A and 5B, for instance), for fixing the load beam to a support arm (21); and a load-generation means (includes 26, for instance, in at least an equivalent structural sense), coupling the at least one fixing means with the load beam (as shown in FIGS. 2C and 5B, for instance), for generating the load, the load-generation means having first at least one leaf spring section (26) formed in a three-dimensionally bent shape and integral with the load beam (as shown in FIGS. 2C and 5B, for instance), the first at least one leaf spring section being located at the rear of the at least one fixing means (as shown in FIGS. 2C and 5B, for instance, i.e., dependent upon viewer perspective) [as per claim 1]; wherein the suspension is a component of a head gimbal assembly comprising the head slider having the at least one head element (as shown in FIGS. 2C and 5B, for instance) [as per claim 2]; wherein the first at least one leaf spring section and the load beam are unitarily formed by a single plate member (as shown in FIGS. 2A and 5B, for instance) [as per claim 3]; wherein the first at least one leaf spring section is located at the rear of a center of an unprung mass of the head gimbal assembly except for the head slider (as shown in FIGS. 2C and 5B, for instance, i.e., dependent upon viewer perspective in so far as this limitation is definite and understood as detailed in paragraph 8a, supra) [as per claim 5]; wherein the first at least one leaf spring section is formed by a single leaf spring section (as shown in FIGS. 2C and 5B, for instance) [as per claim 6]; wherein the at least one head element comprises at least one thin-film magnetic head (lines 64-66 in column 1, for instance) [as per claim 14]; wherein the head gimbal assembly is a

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component of a head arm assembly further comprising the support arm fixed to the at least one fixing means at its top end section for supporting the load beam (as shown in FIGS. 1 and 5B, for instance); and a drive means (includes 24 and 26 as shown in FIG. 1, for instance, in at least an equivalent structural sense) for rotationally moving the support arm in a direction parallel to the surface of the recording medium [as per claims 15-16, 18-19 and 27]; wherein the first at least one leaf spring section is located at the front of a horizontal bearing axis (part of 22 as shown in FIG. 1, for instance) of the support arm (i.e., dependent upon viewer perspective), which is driven to rotationally move around the horizontal bearing axis [as per claims 28-29, 31-32 and 40]; and wherein the head arm assembly is a component of a disk drive device (10) comprising the recording medium (as shown in FIG. 1, for instance) [as per claims 41-42].

11. Claims 1-3, 5-6, 14-16, 18-19, 27-29, 31-32, and 40-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Honda et al. (US 2004/0001287).

Honda et al. (US 2004/0001287) teaches a suspension comprising a resilient flexure (9) for supporting a head slider (3) having at least one head element (lines 6-8 in paragraph [0032], for instance) to control flying attitude of the head slider; a load beam (15), supporting the flexure at its top end section (as shown in FIGS. 1-2, for instance), for applying a load in a direction perpendicular to a surface of a recording medium (102) to the head slider; at least one fixing means (includes 16a, for instance, in at least an equivalent structural sense), formed integral with the load beam (as shown in FIG. 2, for instance), for fixing the load beam to a support arm (20); and a load-generation means

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(includes 16b, for instance, in at least an equivalent structural sense), coupling the at least one fixing means with the load beam (as shown in FIG. 2, for instance), for generating the load, the load-generation means having first at least one leaf spring section (16b) formed in a three-dimensionally bent shape (as shown in FIG. 1, for instance) and integral with the load beam (as shown in FIG. 2, for instance), the first at least one leaf spring section being located at the rear of the at least one fixing means (as shown in FIG. 2, for instance, i.e., dependent upon viewer perspective) [as per claim 1]; wherein the suspension is a component of a head gimbal assembly comprising the head slider having the at least one head element (as shown in FIGS. 1-2, for instance) [as per claim 2]; wherein the first at least one leaf spring section and the load beam are unitarily formed by a single plate member (paragraph [0053], for instance) [as per claim 3]; wherein the first at least one leaf spring section is located at the rear of a center of an unprung mass of the head gimbal assembly except for the head slider (as shown in FIGS. 1-2, for instance, i.e., dependent upon viewer perspective in so far as this limitation is definite and understood as detailed in paragraph 8a, supra) [as per claim 5]; wherein the first at least one leaf spring section is formed by a single leaf spring section (as shown in FIG. 2, for instance) [as per claim 6]; wherein the at least one head element comprises at least one thin-film magnetic head (lines 6-8 in paragraph [0032], for instance) [as per claim 14]; wherein the head gimbal assembly is a component of a head arm assembly further comprising the support arm fixed to the at least one fixing means at its top end section for supporting the load beam (as shown in FIG. 1, for instance); and a drive means (includes 5, lines 3-4 in paragraph [0033], for instance, in

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at least an equivalent structural sense) for rotationally moving the support arm in a direction parallel to the surface of the recording medium [as per claims 15-16, 18-19 and 27]; wherein the first at least one leaf spring section is located at the front of a horizontal bearing axis (27) of the support arm (as shown in FIG. 3, for instance, i.e., dependent upon viewer perspective), which is driven to rotationally move around the horizontal bearing axis [as per claims 28-29, 31-32 and 40]; and wherein the head arm assembly is a component of a disk drive device (101) comprising the recording medium [as per claims 41-42].

Claim Rejections/Considerations - 35 USC § 103

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Pertinent Prior Art

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes Hagen (US 5,065,268), Karam, II (US 5,408,372), Jagt et al. (US 5,898,543), Shimizu et al. (US 5,999,369), Kuwajima et al. (US 2004/0057159), Honda et al. (US 2004/0090710), and Sato (JP 09-082052), which each individually teaches a suspension comprising fixing means formed integral with a load beam for fixing the load beam to a support arm; and a load-generation means coupling

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the fixing means with the load beam and having first at least one leaf spring section formed in a three-dimensionally bent shape and integral with the load beam.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (571) 272-7580. The examiner can normally be reached on Tuesday-Friday 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Craig A. Renner
Primary Examiner
Art Unit 2627

CAR